CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

September 23, 1998

H.R. 219
Homeowners' Insurance Availability Act of 1998

As reported by the House Committee on Banking and Financial Services on August 7, 1998

SUMMARY

H.R. 219 would require the Secretary of the Treasury to sell reinsurance for natural disasters. Reinsurance is insurance for insurers; it allows insurers to transfer part of their risk to another entity. The bill would make reinsurance available through contracts sold at set prices to eligible state disaster insurance programs and through contracts auctioned to private and state insurers and reinsurers and any other purchasers. The reinsurance program would expire in 10 years unless the Secretary determined that continuation of the program was necessary, in which case the Secretary could extend the program for five additional years.

Two factors make the budgetary impact of H.R. 219 highly uncertain. First, because catastrophic events are exceedingly difficult to predict, the federal government may not be able to determine prices for the proposed contracts that would cover the potential future costs of those financial obligations. Second, the Secretary of the Treasury would have considerable discretion to implement the program. Because of that discretion, it is not possible to determine what form the reinsurance contracts would take, how many such contracts would be offered, how many contracts would be sold, the level of losses at which the contracts sold to states would be triggered, or the risk loads that would be included in the prices of the contracts.

Because of these uncertainties, CBO cannot estimate the bill's likely budgetary impact. Nonetheless CBO expects that enacting this bill would probably increase direct spending over the 1998-2007 period on an expected-value basis. Because the bill would affect direct spending, pay-as-you-go procedures would apply.

H.R. 219 would expose taxpayers to a maximum of $25 billion annually in mandatory obligations to pay purchasers of insurance contracts. These possible outlays may not be fully covered by receipts from the sale of contracts. The potential mismatch between receipts and outlays stems from the inherent uncertainty regarding the frequency and severity of future

catastrophes. This uncertainty creates doubts that contracts can be priced so that contract revenues exceed payments, even though H.R. 219 would require contract prices to include a factor that would reflect at least some of the risk associated with the variability in annual losses covered by the contracts.

H.R. 219 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA). Any costs incurred by state governments would result from the voluntary purchase of the federal disaster reinsurance contracts that would be established by this bill.

DESCRIPTION OF THE BILL'S MAJOR PROVISIONS

Under H.R. 219, the Secretary of the Treasury would sell reinsurance contracts directly to eligible state insurance programs and would auction reinsurance contracts to private parties (such as insurance companies) and state insurance programs. Contracts would cover damage to residential property from earthquakes, fire, tsunami, cyclones (including hurricanes and typhoons), and volcanic eruptions if the damage exceeds certain thresholds. Each contract would last for one year and would cover only a single peril. The contracts would provide an option for the purchase of additional insurance coverage if coverage is exhausted during the term of the contract. The additional coverage would have similar terms and conditions to the original contract but could reflect a new estimate of the costs of property losses. All payments on the contracts would be made from the reinsurance trust fund. If accumulated contract revenues and investment income are insufficient to pay claims and expenses, H.R. 219 would authorize the Secretary to borrow up to $25 billion a year, adjusted annually for inflation. If claims exceeded $25 billion in any given year, then each claimant would receive a prorated portion of the amounts available.

Contracts Sold Directly to State Programs

Contracts sold directly to state programs would require that at least 10 percent of the net investment income of the state program be used for programs to mitigate the risk of the insured peril. The price of each contract would reflect a risk-based price[1], a risk-load factor[2] at least equal to the risk-based price, and a factor to cover administrative costs. A federal commission would perform the actuarial analyses and recommend prices. The commission

1. The risk-based price is an estimate of the average annual payout of the insurance contract, taking into account the estimated probabilities of catastrophic events of all relevant sizes.

2. The risk-load factor is an amount added to the risk-based price to compensate the insurer for the variability of losses in any given year around the long-run average and for the uncertainty surrounding available estimates of the average itself.

would consist of five members appointed by the Secretary and would include at least one representative of a nationally recognized consumer organization. The Secretary could choose prices equal to or greater than those recommended by the commission.

The contract would pay 50 percent of the excess losses from an insured event with costs exceeding the greatest of $2 billion, the claims-paying capacity of the state fund, and the Secretary's estimate of the losses from a one-in-100-year event. That is, contract payouts would begin once the highest of those three points is reached. Estimates from the insurance industry indicate that if a Hurricane Andrew-level hurricane struck Miami or if an earthquake of magnitude 7 occurred in a heavily populated area of California, losses could exceed the one-in-100-year threshold for payouts from the federal fund. Seismologists have estimated a two-out-of-three chance that one or more earthquakes of magnitude 7 or greater will strike the San Francisco Bay area by 2020. The probability of an earthquake of similar magnitude in Southern California is even higher. If the 1906 San Francisco earthquake (8.3 on the Richter Scale) occurred today, it is estimated that losses would be approximately $76 billion.

The trigger levels for contract payouts would be lower in the first five to seven years of the program. During that time, the trigger levels would be the greater of $2 billion or the claims-paying capacity of the state fund. State funds that do not have the capacity to cover one-in-100-year events would be required to increase their capacity to that level by the end of the five years, with the possibility of two one-year extensions. In the interim, payouts could be triggered by less catastrophic disasters. If a state program received payments that come from the borrowing authority of the federal program, the state program would have to continue to purchase reinsurance coverage until the federal program had repaid all amounts borrowed, including interest.

Contracts Auctioned to Private and State Insurers and Reinsurers

Contracts would also be sold by auction to private and state insurers and reinsurers and other eligible purchasers. Auctions would be held on a regional basis and would be conducted annually. The Secretary would divide the country into at least six regions, with separate regions for all or part of California and Florida. Since there are currently only three state insurance pools, the auctioned contracts would cover risks beyond those covered by the contracts sold to state insurance programs. Such additional risks include hurricanes outside of Florida and earthquakes along the New Madrid fault in Missouri.

Contracts would be auctioned with a minimum reserve price that would reflect a risk-based price that takes into account mitigation efforts conducted in the region, a risk-load factor at least equal to the risk-based price, and a factor to cover administrative expenses. Each reserve price would be set by the Secretary after considering recommendations by the commission. The contracts would pay 50 percent of excess losses if aggregate losses exceeded the greater of $2 billion or the estimate of such losses from a one-in-100-year event.

COST TO THE FEDERAL GOVERNMENT

Direct Spending (Including Offsetting Receipts)

Although the impact of H.R. 219 on the federal budget cannot be quantified, CBO expects that enacting the bill would likely result in a net increase in direct spending by the government because the price of the reinsurance contracts is more likely to be too low than too high, relative to the expected level of payments on the reinsurance contracts. Moreover, other federal payments for disaster assistance would not necessarily be reduced significantly as a result of enacting H.R. 219. (Other payments for disaster assistance are generally subject to appropriation.)

Payouts on Reinsurance Contracts. In principle, payouts on contracts under H.R. 219 would be made only if an event occurred that had been predicted to occur less than once every 100 years. In practice, states may not have the claims-paying capacity to support losses resulting from one-in-100-year events. Since the Secretary would be authorized to lower the trigger levels for payouts from the state contracts in the first five to seven years of the program if the claims-paying capacity is too low, the contracts initially sold under H.R. 219 would be likely to cover events that occur more frequently than once every 100 years.

Although H.R. 219 states that funds from the reinsurance trust fund are subject to appropriation, the reinsurance contracts would be obligations of the federal government, and contract payments from the reinsurance trust fund would therefore constitute direct spending.

Likelihood That Contracts Would Be Priced Too Low. Although the intent of the proposal is to price the contracts so that the net cost to the taxpayers would be zero in the long run, it may not be possible to establish a price for the contracts that would have no present-value cost to the federal government. It would be difficult to determine the correct prices for the contracts, and CBO believes that there is greater risk that the contracts would be priced too low rather than too high. It is difficult to predict the frequency and severity of catastrophic loss, and private insurers have underestimated catastrophic losses in recent years. In addition, it is likely that there would be pressure to keep the contract prices low so that the contracts would be affordable in high-risk areas.

Under H.R. 219, the prices of the reinsurance contracts would be based in part on expected losses as determined by the proposed commission. However, predicting the frequency and severity of losses from future catastrophes has proven to be a difficult task. Recently, the insurance industry has underestimated the losses from catastrophic events and, as a result, has suffered tremendous financial losses. As one recent example, California insurers collected $3.4 billion in earthquake premiums in the 25-year period prior to the Northridge earthquake and paid out $12.5 billion in Northridge claims, more than three times the amount collected. Catastrophic events are infrequent, and historical data are limited; moreover, history may be an imperfect guide to the future. Insurers have been consistently surprised by the occurrence of several large disasters over the past decade, and some scientists have revised upwards the estimated frequency of catastrophic events such as hurricanes. After each major event, the industry has raised its estimate of future losses. CBO cannot conclude that the federal government would perform better than the insurance industry in overcoming the problems of estimating catastrophic losses and properly pricing insurance contracts.

Risk loads would be included in contract prices to mitigate the uncertainty of the risk-based prices, but the risk loads envisioned in the bill could be much smaller than risk loads used in the private reinsurance market. Risk loads in the private sector range between four and six times the actuarially expected loss in disaster-prone areas such as Florida. But the risk loads used by the private companies may be adequate, as indicated by the dramatic increases in private reinsurance prices following recent catastrophes. Furthermore, if contract prices under H.R. 219 are too low in any one year, it is not likely that the underpricing would be corrected in the next year because the accuracy of contract prices are revealed only over a longer term. (In other words, it would likely take several years after contract sales to determine whether the established prices were high enough to cover costs.)

In addition, consumer and political pressures would create a strong incentive to keep the contract prices at an affordable level. Expected losses in some areas of the country are likely to cause contract prices to be prohibitively high relative to the demand for coverage and the ability to pay for such coverage. Even if the government were just as likely to set contract prices too high as too low, the implications for the budget would not be symmetric: whereas low prices would encourage the sale of large numbers of reinsurance contracts and create a large contingent liability, high prices would hinder sales and possibly yield few if any gains to the Treasury. In principle, for those contracts sold at auctions, bidding in an open auction could drive the prices of the contracts to their actuarially fair value even if the reserve price were set too low. CBO cannot be confident, however, that there would be sufficient demand for the contracts to bid up their prices, in part because H.R. 219 does not place a limitation on the number of contracts to be sold. In addition, the design of the auction, which is not specified in the bill, could have a significant impact on the price the government receives.

Spending Subject to Appropriation

H.R. 219 would authorize additional discretionary spending for expenses associated with establishing the commission. The bill would authorize the appropriation of $1 million for expenses associated with the commission, and would authorize the appropriation of such additional sums as may be necessary to carry out subsequent activities of the committee.

The reinsurance contracts under H.R. 219 and the emphasis these contracts place on mitigation efforts might reduce other federal payments for disaster assistance. The reinsurance contracts would reduce private insurers' exposure to risk. If insurers translate this lower risk into either lower premiums or more generous policies, the amount of insurance coverage could expand and fewer people may need other forms of federal assistance in the event of a catastrophe. Because most federal disaster payments are funded by annual appropriations, enacting H.R. 219 could eliminate the need for some future appropriations, but CBO cannot estimate the likelihood or magnitude of any such savings.

Several major federal disaster assistance programs, such as catastrophic crop insurance and disaster relief grants, benefit individuals or organizations that would not be affected by the reinsurance contracts offered under H.R. 219. For instance, most spending from the Federal Emergency Management Agency's disaster relief fund is for public infrastructure assistance to state and local governments, entities which do not carry traditional insurance. In addition, though recent studies have provided evidence that certain mitigation efforts can be cost-effective in the long run, the magnitude of any such savings to the federal government remains speculative.

PAY-AS-YOU-GO CONSIDERATIONS

The Balanced Budget and Emergency Deficit Control Act specifies pay-as-you-go procedures for legislation affecting direct spending or receipts. CBO expects that enacting H.R. 219 would increase direct spending, but we cannot estimate the magnitude or timing of such spending.

ESTIMATE IMPACT ON STATE, LOCAL, AND TRIBAL GOVERNMENTS

H.R. 219 contains no intergovernmental mandates as defined in the UMRA and would benefit states that choose to participate in the reinsurance program established by this bill. Eligible state insurance or reinsurance programs could purchase federal reinsurance contracts at an established price; any state insurance or reinsurance program could purchase federal reinsurance contracts at regional auctions. Purchasing the federal reinsurance would transfer some of the risk associated with large-scale natural disasters to the federal government. Any costs incurred by state governments would result from voluntary participation in this program.

ESTIMATED IMPACT ON THE PRIVATE SECTOR

This bill would impose no new private-sector mandates as defined in UMRA.

PREVIOUS CBO ESTIMATE

On October 8, 1997, CBO prepared a cost estimate for H.R. 230, the Natural Disaster Protection and Insurance Act of 1997, as introduced on January 7, 1997. CBO estimated that H.R. 230 would result in significant net costs to the federal government but did not quantify the effect of the bill. H.R. 230 differs from H.R. 219 in that all the contracts would be sold through an auction process and losses resulting from natural catastrophes in excess of $10 billion would be covered.

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